Rule CIC277: CICS-DB2 pool threads in use approaching thread limit

Finding: The number of pool threads in use is approaching the thread limit specified for the CICS-DB2 connection.

Impact: This finding should normally have a MEDIUM IMPACT or HIGH IMPACT on the performance of CICS tasks in the region that use the CICS-DB2 connection.

Logic flow: This is a basic finding, based upon an analysis of the CICS statistics. This finding applies only with CICS/Transaction Server for OS/390 Release 1.2 and subsequent releases of CICS.

Discussion: This rule was added to CPExpert Release 13.1 in April 2003 at the request of **Rex Avendano** (Kaiser Permenante), and Release 13.1 was issued at the end of April. The work involved with issuing Release 13.1 precluded any comprehensive research into the finding. Consequently, while the rule is produced by CPExpert code, no discussion of the implications or suggestions for alternative actions have been provided. This missing documentation will be produced immediately after Release 13.1 has been issued; I will have the documentation ready by mid-May. If any user has Rule CIC277 produced, please contact Don_Deese@cpexpert.com and I will send the new documentation to you.

CICS-DB2 global statistics are available in MXG file CICDB2GL. CPExpert uses data in CICDB2GL to calculate the percent of pool threads in use relative to the Pool Thread Limit, using the following algorithm:

$$\textit{Percent pool threads in use} = \frac{\textit{Peak pool threads in use}}{\textit{Pool Thread Limit}}$$

where

Peak pool threads in use	=	D2GTHRPK
Pool Thread Limit	=	D2GTHRLM

CPExpert produces Rule CIC277 when the percent pool threads in use is more than the value specified by the **PCTD2THR** guidance variable in USOURCE(CICGUIDE). The default value for the **PCTD2THR** is 80 indicating that CPExpert should produce Rule CIC277 whenever the pool threads in use was more than 80% of the pool thread limit specified for the CICS-DB2 Connection.

Suggestion: Suggestions will be available upon request, in May 2003 when this document is revised.

Reference: References will be available upon request, in May 2003 when this document is revised.

Thanks: Thanks to **Rex Avendano** (Kaiser Permenante) for suggesting this rule.

